

**DEPARTMENT OF THE AIR FORCE  
TECHNICAL ORDER**

TO 31P1-4-108-557  
DATA CODE: 3117890  
1 Sep 1997  
Rescission date: 1 Sep 1998

**RETROFIT EXPANSION OF NARROWBAND  
COMMUNICATION PORTS, RPG UNIT 22, TO  
INTERFACE 10 DOD WSR-88D'S WITH THE  
AUTOMATED FORECAST OBSERVING SYSTEM (AFOS)  
NETWORK.**

**NOTE**

Military Commanders are responsible for bringing this technical order to the attention of all maintenance personnel cleared for access of affected system.

**1. APPLICATION.**

1.1 Identification. This TCTO is applicable to the following WSR-88D RPG sites:

Altus AFB, OK	Ft. Polk, LA	Robins AFB, GA
Dover AFB, DE	Ft. Rucker, AL	Vance AFB, OK
Edwards AFB, CA	Holloman AFB, NM	
Ft. Campbell, KY	Moody AFB, GA	

1.2 Kit Applicability by Model and Serial Number. Not applicable.

1.3 Proofing. This modification was successfully kit proofed at Jacksonville, Florida, on July 8, 1997.

**2. PURPOSE.**

The purpose of this Routine TCTO is to provide instructions for the configuration of the Radar Product Generation Group (RPG) port supporting the interface with AFOS. The authority for this TCTO is OSF CCR NA96-05802 and OSF ECP F0088R0C1.

**Distribution Statement A - Approved for public release; distribution is unlimited.**

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### 3. WHEN TO BE ACCOMPLISHED.

Not later than 30 days after receipt of TCTO. Failure to accomplish the work by expiration of compliance period or 60 days prior to rescission date will be justification for withdrawing the affected system from service until compliance is accomplished.

### 4. BY WHOM TO BE ACCOMPLISHED.

Organizational level personnel will accomplish this modification.

### 5. WHAT IS REQUIRED.

#### 5.1 Supply-Information and Requirements.

5.1.1 Kits/Parts/Materials Required. The following parts compose the kits for this modification.

***The OSF Logistics Section will direct ship the required kit(s) to the NEXRAD maintenance facility at no cost.***

Kits and kit contents: Verifying and labeling kits is suggested prior to initiating modification.

<u>A</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>G</u>	<u>Nomenclature</u>	<u>Part No.</u>	<u>NSN</u>
1	-	1	-	-	Modem, Dedicated	1219739-202	5895-01-377-7105
1	-	-	-	-	Cable Assembly	1221203-530	5995-01-387-3817
-	1	-	-	-	VME Narrowband Bd	1222421-204	5998-01-397-8290
-	1	-	-	-	VME 4 to 1 Cable	1222423-302	5995-01-417-4640
1	-	1	-	-	Label, Cable, (sheet)	SLSH-2015-5	7690-01-049-1770
1	-	1	-	-	Tiewraps	MS3367-2-9	5975-00-156-3253
-	-	1	-	-	Cable Assembly	1222302-307	5995-01-407-2893
2	-	2	-	-	Arrester, Electrical	COHP-150	5920-01-390-1340
-	-	-	1	-	Rack W/Power Supply	80400	5975-01-389-4415
-	-	-	1	-	Locator Plate, (A2)	1214845-202	9905-01-417-1917
-	-	-	-	1	Patch Panel, Dedicated	1213826-201	5805-01-358-4488
-	-	-	-	1	Cable Assy. (22/122W22)	1214790-304	5995-01-440-7556
-	-	-	-	1	Cable Assy. (22/122W21)	1214789-307	5995-01-407-2894
-	-	-	-	1	Locator Plate, (A13)	1214845-213	9905-01-440-7558
-	-	-	-	1	Cable Assy. (W230)	1214868-303	5995-01-440-7552
-	-	-	-	8	Screw	MS51958-61	5305-00-059-3657
-	-	-	-	8	Washer	MS35338-138	5310-00-933-8120
-	-	-	-	8	Washer	MS15795-808	5310-00-619-1148

Each site will be modified using a combination and quantity of the required kits. Each site and its required kit(s) are listed below:

Quantity of Kits:

<u>A</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>G</u>	<u>Site</u>	<u>A</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>G</u>	<u>Site</u>
-	1	1	1	1	Altus AFB, OK	1	-	-	-	-	Dover AFB, DE
1	-	-	-	-	Edwards AFB, CA	1	1	-	-	-	Ft Campbell, KY
1	-	-	-	-	Ft Polk, LA	1	1	-	-	-	Ft Rucker, AL
1	1	-	-	-	Holloman AFB, NM	1	-	-	-	-	Moody AFB, GA
E <sup>1</sup>	-	-	-	-	Robins AFB, GA	1	-	-	-	-	Vance AFB, OK

5.1.2 Action Required on Items in Stock. Not applicable.

5.1.3 Kits/Parts/Material Required to Modify Items in Stock. Not applicable.

5.1.4 Disposition of Removed and Replaced Parts/Material. Not applicable.

5.1.5 Drawings and Instructions Required. Not applicable.

5.1.6 Size and Weight of Kits/Parts/Materials.

<u>Kit</u>	<u>Size</u>	<u>Weight</u>	<u>Cost</u>
A	3 cubic feet	5 lbs	\$850
C	3 cubic feet	5 lbs	\$2965
D	3 cubic feet	5 lbs	\$800
F	5 cubic feet	10 lbs	\$3335
G	2 cubic feet	5 lbs	\$625

5.1.7 Disposition of Kits/Parts/Materials. Not applicable.

5.2 Personnel Information and Requirement. The personnel performing this task will have maintenance and test experience with the WSR-88D RPG. Two technicians are required to execute this procedure.

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<sup>1</sup>Use existing equipment.

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<u>Work Phases</u>	<u>AFSC Skills</u>	<u>Man-Hours</u>
Unpacking	2E051	0.25
Disassembly	Not applicable	
Installation	2E051	2.5
Assembly	Not applicable	
Operational Check	2E051	1.25
	Total Man-Hours	4.0

5.3 Special Tools and Fixtures Required. Not applicable.

6. HOW WORK IS ACCOMPLISHED.

Attachment 1: RPG Port Expansion Procedures  
Attachment 2: RPG Modem Test Procedures  
Attachment 3: Application Software Changes To Expansion Ports At The RPG

7. SUPPLEMENTAL INFORMATION.

7.1 Fuel System Defuel/Purge. Not applicable.

7.2 Operational Checkout Requirements. Not applicable.

7.3 Weight and Balance Information. Not applicable.

7.4 Technical Manuals Affected. Not applicable.

8. RECORDS.

8.1 Action Required on Maintenance Records.

- a. Air Force and Army sites update the AFTO Form 95 to show compliance.
- b. Air Force and Army sites report TCTO compliance in accordance with TO 00-20-2, Table 3-10, Rule 9.
- c. Navy and Marine Corps sites complete the appropriate sections of form OPNAV 4790/CK IAW OPNAVINSTN 4790-4B, Ships Maintenance and Material Management (3-M) Manual. Send the completed form to your Type Commander (TYCOM).
- d. Upon completion of attachment 4, mail, fax, or e-mail this information to the OSF.

(1) Mailing address:  
System Support Branch, Logistics Section  
WSR-88D Operational Support Facility  
Attention: Kim Hare  
3200 Marshall Ave, Suite 101  
Norman, OK 73072-8028

(2) Fax number:  
(405) 366-6553  
Attention: Kim Hare

(3) E-mail address:  
khare@osf.noaa.gov

8.2 Action Required on Supply Records. Not applicable.

8.3 Modification Markings. Not applicable.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

RONALD R. FOGLEMAN, General, USAF  
Chief of Staff

Signed  
Edward L. Berkowitz, Chief  
System Support Branch  
WSR-88D Operational Support Facility  
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